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(54) Title: SYNTHESIS OF 1,2,3,4-TETRAHYDROXYBENZENES 1,2,3-TRIHYDROXYBENZENES AND USING MYO-INOSITOL-1-PHOSPHATE SYNTHASE AND MYO-INOSITOL 2-DEHYDROGENASE

myo-inositol

myo-2-inosose

^aKey: (a) phosphoenolpyruvate:carbohydrate phosphotransferase: (b) myo-inositol 1-phosphate synthase; (c) phosphatase activity; (d) dehydrogenase activity; (e) 0.5 M H₂SO₄, H₂O₄ reflux.

(57) Abstract

A bioengineered synthesis scheme for the production of 1,2,3,4-tetrahydroxybenzene from a carbon source is provided. Methods of producing 1,2,3,4-tetrahydroxybenzene acid from a carbon source based on the synthesis scheme are also provided. Methods are also provided for converting 1,2,3,4-tetrahydroxybenzene to 1,2,3-trihydroxybenzene by catalytic hydrogenation.

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